



Climate-Smart Agriculture: Towards Sustainable landscapes and Food Systems Mobilizing science for transitions

Agriculture is a sector particularly vulnerable to climate change, which impacts livelihoods, especially that of the world's poorest people. This places increased strain on global food systems, more than ever since expectations for meeting demand for food will change tremendously within the next 40 years. Agriculture has also a central role in strongly reducing greenhouse gas emissions and lies therefore at the heart of complex challenges to be addressed. Climate-Smart Agriculture (CSA) invites researchers, practitioners and policy makers to explore solutions combining three pillars, *food security, climate change adaptation and mitigation*, underpinning sustainable landscapes and food systems. This is essential since the sector is facing unprecedented uncertainty and risks.

More than 600 researchers and 150 stakeholders and policy makers from 75 countries and 5 continents convened at the 3rd Global Science Conference on CSA in Montpellier, France, 16-18 March 2015. This shows that CSA is now a framework that mobilizes synergies and can lead to innovative and comprehensive solutions at local, regional and global levels. Delegates also confirmed that CSA solutions exist and can be brought into reality provided favorable policies and conditions.

Agriculture in the future must address the challenges of sustainable food systems and landscapes

- Synergies and tradeoffs between food and nutritional security, climate change adaptation and mitigation support the implementation of global sustainable development objectives.
- Agriculture is a pivotal sector for international negotiations on sustainable development and climate change; it will highlight food and nutritional security as key component.
- Adaptation of the most vulnerable farmers and landscapes to climate change is a worldwide priority.
- Action for building agricultural resilience, along with ecological intensification and ecosystem services, will promote food and nutritional security and poverty reduction and improve livelihoods.

Researchers and practitioners must engage to build evidence and design the trajectories for multiple transformative transitions of climate-smart agriculture

- To move rapidly from assessment and planning towards implementation of options and monitoring of outcomes, the scientific community calls for consistent metrics, and is committed to ambitious sets of actions designed with stakeholders including civil society to support :
 - The assessment of adaptation, mitigation of greenhouse gas emissions and resilience.
 - The design of options supporting the synergies between the three pillars of CSA and relevant to economic, social and environmental contexts.

- The production of early warning systems.
- Taking forward research in agro-ecology, management of soil use and conservation, carbon sequestration, water resources, biodiversity, minimizing wastes and losses in food systems, greenhouse gas footprint, human nutrition and health will all contribute to CSA and promote economic sustainability and global security.
- In order to address the SDGs, the research agenda could therefore address a more complex set of objectives and newly identified knowledge gaps, including the gaps between disciplines and capacity development.

The future relies upon policy, institutional and financing decisions

- In support of CSA, innovation platforms which gather policy makers, development agencies, civil society and the private sector with researchers and research institutions, will increase local and global effectiveness.
- The profile of agriculture within UNFCCC negotiations must be raised, recognizing that food and nutritional security will be severely affected by climate change. Financing instruments for climate change and for agriculture should be bridged.
- A special focus on the contribution of family farming is required, as this population is pivotal for addressing economic and social synergies and trade-offs (employment, gender, age, class and ethnicity).
- The key role of National Agricultural Research and Innovations Systems from low-income countries to generate the knowledge and partnerships for CSA solutions needs to be emphasized.
- An active and organized contribution from the research community to CSA in general and to the Global Alliance of Climate-Smart Agriculture (GACSA) in particular is essential.

The conclusions of the present Statement will be channeled to the UNFCCC negotiators meeting in Paris in December 2015 for the COP 21. The present recommendations are to be discussed and enriched within the different arenas and meetings in preparation for the COP21 negotiations.

The strengthening of CSA scientific community must be pursued and better engaged in interfacing with policy makers, promoting scientific diplomacy. Their capacity to develop relevant global research programs and joint initiatives to address as from now questions that will be key in the future should be supported and stimulated through international cooperation platforms.

On the basis of the above statement of priorities, we ask that policy makers at the COP21 meeting:

- **develop policies and solutions that combine the pillars of food and nutritional security, climate change adaptation and mitigation to underpin sustainable farming, food systems and landscapes;**
- **raise the profile of agriculture and food systems within UNFCCC negotiations, recognizing that food and nutritional security will be severely and quickly affected by climate change;**
- **devote significantly increased funds and support to research to improving agricultural productivity now and in the future whilst at the same time reducing emissions from food production and consumption.**